

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of claims:

1-11. (Canceled)

12. (Withdrawn -- currently amended) A method for separating blood into leukocyte depleted blood components ~~comprising the steps of:~~

[[-]] providing a blood separator device comprising a collecting container ~~(2) for receiving that receives whole~~ blood, a first satellite container (4) ~~physically connected, in fluid flow communication,~~ to said collecting container ~~(2)~~ through a leukocyte filter, (22) and a second satellite container (6) ~~physically connected, in fluid flow communication,~~ to said collecting container through said leukocyte filter ~~(22)~~,

[[-]] separating blood collected in said collecting container ~~(2)~~ into a PRP and PRC blood component,

[[-]] controlling fluid flow of feeding said PRP from said collecting container ~~(2)~~ into said first satellite container (4) through said leukocyte filter to provide a leukocyte depleted ~~first blood component~~ PRP into said first satellite container, while leaving the PRC within said collecting container ~~(2)~~,

[[-]] controlling fluid flow of an additive solution for the PRC adding into said collecting container ~~(2) an additive solution for the PRC,~~

[[-]] controlling fluid flow of feeding said PRC suspended in said additive into said second satellite container (6) ~~passing~~ through said leukocyte filter (22).

13. (Withdrawn -- currently amended) A method according to claim 12, wherein controlling fluid flow of said additive solution includes controlling fluid flow is fed from said second satellite container (6) into said collecting container (2) through by-pass conduit means (34), by-passing a conduit that bypasses said leukocyte filter ~~(22)~~.

14. (Withdrawn – currently amended) A method according to claim 12, comprising the steps of:

[[-]] detecting the presence of said PRC in the a filtrate from said leukocyte filter, (22) and

[[-]] controlling switching fluid flow communication from said collecting container (2) to said first satellite container (4) to fluid flow communication from said collecting container (2) to said second satellite container (6) responsive to detecting when the presence of said PRC is detected in the filtrate, thereby to allowing recovery into said first satellite container (4) of the filter hold-up of the PRP.

15. (Withdrawn – currently amended) A method according to claim 12, further comprising separating the second leukocyte depleted PRP in said first satellite container (4) into a third PL plasma and fourth (PC) blood component platelet concentrate, and feeding controlling fluid flow of said third PL plasma from said first satellite container (4) into a third satellite container (8).

16. (Withdrawn – currently amended) Method according to claim 12, carried out with the use of a device having:

–a collecting container (2) for receiving WB;

–a first satellite container (4) connected, in fluid flow communication, to said collecting container (2) through a leukocyte filter (22) for receiving from said collecting container (2) a leukocyte depleted PRP;

–a second satellite container (6) connected, in fluid flow communication, with said collecting container (2) for receiving from said collecting container a leukocyte depleted PRC, characterised in that said second satellite container (6) is connected to said collecting container (2) through said leukocyte filter (22);

a set of flow control means (36, 38, 42) being provided controllers for allowing controlling fluid flow from said collecting container selectively into said first (4) or second (6) satellite container through said leukocyte filter (22), whereby WB whole blood can be separated into a leukocyte depleted PRP and PRG leukocyte depleted blood component PRC with a single leukocyte filter (22).

17. (Withdrawn – currently amended) Method according to claim 13, carried out with the use of a device having:

- a collecting container (2) for receiving WB;
- a first satellite container (4) connected, in fluid flow communication, to said collecting container (2) through a leukocyte filter (22) for receiving from said collecting container (2) a leukocyte depleted PRP;
- a second satellite container (6) connected, in fluid flow communication, with said collecting container (2) for receiving from said collecting container a leukocyte depleted PRC, characterised in that said second satellite container (6) is connected to said collecting container (2) through said leukocyte filter (22);

a set of flow control means (36, 38, 42) being provided controllers for allowing controlling fluid flow from said collecting container selectively into said first (4) or second (6) satellite container through said leukocyte filter (22), whereby WB whole blood can be separated into a leukocyte depleted PRP and PRG leukocyte depleted blood component PRC with a single leukocyte filter (22).

18. (Withdrawn – currently amended) Method according to claim 14, carried out with the use of a device having:

- a collecting container (2) for receiving WB;
- a first satellite container (4) connected, in fluid flow communication, to said collecting container (2) through a leukocyte filter (22) for receiving from said collecting container (2) a leukocyte depleted PRP;

~~—a second satellite container (6) connected, in fluid flow communication, with said collecting container (2) for receiving from said collecting container a leukocyte depleted PRC, characterised in that said second satellite container (6) is connected to said collecting container (2) through said leukocyte filter (22),~~

~~a set of flow control means (36, 38, 42) being provided controllers for allowing controlling fluid flow from said collecting container selectively into said first (4) or second (6) satellite container through said leukocyte filter (22), whereby WB whole blood can be separated into a leukocyte depleted PRP and PRC leukocyte depleted blood component PRC with a single leukocyte filter (22).~~

19. (Withdrawn – currently amended) Method according to claim 15, carried out with the use of a device having:

~~—a collecting container (2) for receiving WB,~~

~~—a first satellite container (4) connected, in fluid flow communication, to said collecting container (2) through a leukocyte filter (22) for receiving from said collecting container (2) a leukocyte depleted PRP,~~

~~—a second satellite container (6) connected, in fluid flow communication, with said collecting container (2) for receiving from said collecting container a leukocyte depleted PRC, characterised in that said second satellite container (6) is connected to said collecting container (2) through said leukocyte filter (22),~~

~~a set of flow control means (36, 38, 42) being provided controllers for allowing controlling fluid flow from said collecting container selectively into said first (4) or second (6) satellite container through said leukocyte filter (22), whereby WB whole blood can be separated into a leukocyte depleted PRP and PRC leukocyte depleted blood component PRC with a single leukocyte filter (22).~~

20. (Canceled)

21. (Currently Amended) A device for separating blood into blood components, comprising:

- a collecting container that receives WB whole blood;
- a leukocyte filter that filters the WB whole blood so as to remove leukocytes from the WB whole blood and allow platelets to pass through the filter;
- a first satellite container physically coupled to in fluid communication with the collecting container by a first conduit that includes through the leukocyte filter, ~~such that the first satellite container receives through a first satellite container conduit a leukocyte depleted PRP;~~
- a second satellite container physically coupled to in fluid communication with the collecting container by a second conduit that includes through the leukocyte filter and a third conduit that bypasses the leukocyte filter; ~~such that the second satellite container receives through a second satellite container conduit a leukocyte depleted PRP;~~
- a plurality of valves ~~that~~ selectively operable to control fluid flow between the containers including:
 - controlling fluid flow from ~~associated with~~ the collecting container; to the first satellite container via the first conduit that includes the leukocyte filter,
 - controlling fluid flow from the collecting container to ~~and~~ the second satellite container via the second conduit that includes the leukocyte filter,
 - controlling fluid flow from the second satellite container to the collecting container via the third conduit; ~~and a bypass conduit that bypasses the leukocyte filter, and that maintains the fluid communication between the collecting container and the second satellite container, one of the plurality of valves being configured to provide for fluid flow from the second satellite container into the collecting container only through the bypass conduit.~~

22. (Currently Amended) The device according to claim 21, wherein:

the first conduit further includes a first tubing segment that couples the collecting container to the leukocyte filter, a second tubing segment that couples the leukocyte filter to the first satellite container through further comprising a three-way conduit connector, in the second satellite container conduit, wherein

the second conduit further includes the first tubing segment that couples the collecting container to the leukocyte filter, a third tubing segment that couples the leukocyte filter to the second satellite container through the three-way conduit connector; and

the third conduit further includes a one-way valve operable in conjunction with the plurality of valves to that provides for fluid control fluid flow from the second satellite container into to the collecting container only through the bypass conduit, is located in the second satellite container conduit between the leukocyte filter and the three-way conduit connector.

23. (Previously presented) The device according to claim 21, wherein each of the plurality of valves is a hose clamp.

24. (New) A blood separation system comprising:

- a primary receptacle for containing platelet rich plasma (PRP) and packed red cells (PRC);
- a leukocyte filter for filtering leukocytes and allowing platelets to pass through;
- a first secondary receptacle for receiving leukocyte depleted PRP from the primary receptacle;
- a second secondary receptacle for receiving leukocyte depleted PRC from the primary receptacle; and
- a set of flow controllers selectively operable to provide:
 - a first fluid pathway, wherein fluids flow from the primary receptacle to the first secondary receptacle through the leukocyte filter,

a second fluid pathway, wherein fluids flow from the primary receptacle to the second secondary receptacle through the leukocyte filter, and
a third fluid pathway, wherein fluids flow from the second secondary receptacle to the primary receptacle without passing through the leukocyte filter.

25. (New) The system of claim 24, wherein the second secondary receptacle includes a blood additive, and wherein the set of flow controllers is selectively operable such that the first secondary receptacle contains leukocyte depleted PRP and the second secondary receptacle contains leukocyte depleted PRC flowing along a series of fluid pathways in the following sequential order:

the first fluid pathway, wherein the PRP flows from the primary receptacle to the first secondary receptacle through the leukocyte filter;
the second fluid pathway, wherein the PRC suspended in the blood additive flows from the primary receptacle to the second secondary receptacle through the leukocyte filter; and
the third fluid pathway, wherein the blood additive flows from the second satellite container to the primary receptacle without passing through the leukocyte filter.

26. (New) The system of claim 24, further comprising:

a sensor for detecting fluid flow or presence of fluid at selected locations about the system.

27. (New) The system of claim 26, wherein the set of flow controllers are electro-mechanical valves that are remotely controlled by the sensor and are selectively responsive to one or more sensor outputs.

28. (New) The system of claim 24, further comprising:

a sensor for generating a sensor output indicative of a detected presence of packed red cells.

29. (New) The system of claim 28, wherein the set of flow controllers is selectively operable to:

close the first fluid pathway and provide the second fluid pathway responsive to the sensor output indicative of the detected presence of packed red cells.

30. (New) The system of claim 24, wherein the set of flow controllers includes at least one manually operated valve.

31. (New) The system of claim 24, further comprising:

a one-way valve disposed within a conduit that physically couples the primary receptacle and the second secondary receptacle,

wherein the one-way valve is operable in conjunction with the set of flow controllers to provide a uni-directional third fluid pathway for fluids to flow from the second secondary receptacle to the primary receptacle without passing through the leukocyte filter.

32. (New) The system of claim 24, further comprising:

a third secondary receptacle for receiving plasma from the first secondary receptacle,

wherein the set of flow controllers is selectively operable to provide a fourth fluid pathway for fluids to flow from the first secondary receptacle to the third secondary receptacle.

33. (New) A method for separating blood into leukocyte depleted blood components comprising:

providing a blood separator device comprising the device of claim 21;

separating blood collected in the collecting container into a platelet rich plasma (PRP) blood component and a packed red cell (PRC) blood component;
feeding the PRP from the collecting container into the first satellite container through said leukocyte filter to provide a leukocyte depleted first blood component into said first satellite container, wherein PRC remains in the collecting container;
adding into the collecting container an additive solution for the PRC; and
feeding said PRC suspended in the additive solution into the second satellite container passing through said leukocyte filter.